Oral appliances for the treatment of obstructive sleep apnea (OSA) are worn during sleep to maintain the patency of the upper airway by increasing its dimensions and reducing its collapsibility. Oral appliances are a simpler alternative to continuous positive airway pressure (CPAP). Over the last decade, there has been a significant expansion of the evidence base to support the use of oral appliances, with robust studies demonstrating their efficacy. This work has been underpinned by the recognition of the importance of upper airway anatomy in the pathophysiology of OSA. The updated practice parameters of the American Academy of Sleep Medicine now recommend their use for mild-to-moderate OSA, or for patients with severe OSA who are unable to tolerate CPAP or refuse treatment with CPAP. Oral appliances have been shown to have a beneficial impact on a number of important clinical end points, including the polysomnographic indexes of OSA, subjective and objective measures of sleepiness, BP, aspects of neuropsychological functioning, and quality of life. Elucidation of the mechanism of action of oral appliances has provided insight into the factors that predict treatment response and may improve the selection of patients for this treatment modality. Longitudinal studies to characterize the long-term adverse effects of oral appliance use are now beginning to emerge. Although less efficacious than CPAP for improving the polysomnographic indexes of OSA, oral appliances are generally preferred by patients. This has the potential to translate to better patient adherence and may provide an equivalent health outcome.